IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	
Mihaela Van Der Schaar	Group Art Unit: 2623
Serial No.: 10/056,368	Examiner: Annan Q. Shang
Filed: January 17, 2002	**Board of Patent Appeals and Interferences**
For: TARGETED SCALABLE MULTICAST BASED ON CLIENT BANDWIDTH OR CAPABILITY	

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed November 24, 2006, and pursuant to 37 C.F.R. § 41.37, Appellant presents their appeal brief in the above-captioned application.

This is an appeal to the Board of Patent Appeals and Interferences from the Examiner's final rejection of claims 1-21 in the Final Office Action dated August 23, 2006. The appealed claims are set forth in the attached Claims Appendix.

1. Real Party in Interest

This application is assigned to Koninklijke Philips Electronics N.V., the real party in interest.

2. Related Appeals and Interferences

There are no other appeals or interferences which would directly affect, be directly affected, or have a bearing on the instant appeal.

3. Status of the Claims

Claims 1-21 were rejected in the Final Office Action dated August 23, 2006. The final rejection of claims 1-21 is being appealed.

4. Status of Amendments

All amendments submitted by the Appellant have been entered. None were submitted after the Advisory Action.

5. Summary of Claimed Subject Matter

An exemplary embodiment of the present invention as recited in claim 1 is directed to a method for transmitting video data. (See Specification, p. 7, line 1 – p. 8, line 22; and Figs. 3 and 4). The method comprises the steps of assigning a recipient (240, 250, 260) to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a

data stream (210, 220) of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream (210, 220) is to be multicasted. (See Id., p. 7, lines 4-8). The method further comprises the step of selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient (240, 250, 260); and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient (240, 250, 260) is used to process data of the selected data stream type. (See Id., p. 7, lines 9-14). The method further comprises the step (300) of coding the data stream (210, 220) in a manner which takes advantage of the range of bandwidths or type of data stream (210, 220) that has been or is to be selected. (See Id., p. 7, lines 15-19). The method further comprises the step (310) of multicasting the coded data stream (210, 220) over the link to the MG of the recipient (240, 250, 260). (See Id., p. 8, lines 17-19).

A further exemplary embodiment of the present invention as recited in claim 10 is directed to a system (200) for multicasting video data. (See Id., p. 4, line 11 – p. 6 line 30; and Fig. 2). The system (200) includes means for assigning a recipient (240, 250, 260) to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream (210, 220) of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream (210, 220) is to be multicasted. (See Id., p. 5, lines 6-14). The system (200) further includes means for selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient (240, 250, 260); and (2) one of a plurality of different data stream types, so that the

identified capability of the MG of the recipient (240, 250, 260) is used to process data of the selected data stream type. (See Id., p. 6, lines 15-24). The system (200) further includes means for coding the data stream (210, 220) in a manner which takes advantage of the range of bandwidths or type of data stream (210, 220) that has been or is to be selected. (See Id., p. 6, line 16 – p. 6, line 24). The system (200) further includes means for multicasting the coded data stream (210, 220) over the link to the MG of the recipient (240, 250, 260). (See Id., p. 6, lines 25-30).

A further exemplary embodiment of the present invention as recited in claim 12 is directed to a machine readable medium that contains computer program code, wherein, when the computer program code is executed by a processor, the processor performs a method for multicasting video data. (See Id., p. 12, lines 10-23). The method comprises the steps of assigning a recipient (240, 250, 260) to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream (210, 220) of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream (210, 220) is to be multicasted. (See Id., p. 7, lines 4-8). The method further comprises the step of selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient (240, 250, 260); and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient (240, 250, 260) is used to process data of the selected data stream type. (See Id., p. 7, lines 9-14). The method further comprises the step (300) of coding the data stream (210, 220) in a manner which takes advantage of the range of bandwidths or type of data stream (210, 220) that has been or is to be selected.

(See Id., p. 7, lines 15-19). The method further comprises the step (310) of multicasting the coded data stream (210, 220) over the link to the MG of the recipient (240, 250, 260).

A further exemplary embodiment of the present invention as recited in claim 17 is directed to a signal encoded with data representing computer program code, wherein, when the computer program code is executed by a processor, the processor performs a method for transmitting video data. (See Id., p. 12, lines 10-23). The method comprises the steps of assigning a recipient (240, 250, 260) to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream (210, 220) of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream (210, 220) is to be multicasted. (See Id., p. 7, lines 4-8). The method further comprises the step of selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient (240, 250, 260); and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient (240, 250, 260) is used to process data of the selected data stream type. (See Id., p. 7, lines 9-14). The method further comprises the step (300) of coding the data stream (210, 220) in a manner which takes advantage of the range of bandwidths or type of data stream (210, 220) that has been or is to be selected. (See Id., p. 7, lines 15-19). The method further comprises the step (310) of multicasting the coded data stream (210, 220) over the link to the MG of the recipient (240, 250, 260).

6. Grounds of Rejection to be Reviewed on Appeal

I. Whether claims 1-7 and 9-20 are unpatentable under 35 U.S.C. § 102 (e) as being anticipated by U.S. Patent No. 6,252,857 to Fendick et al. ("the Fendick patent").

II. Whether claims 8 and 21 are unpatentable under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,252,857 to Fendick et al. ("the Fendick patent") in further view of U.S. Patent No. 6,151,636 to Schuster et al. ("the Schuster patent").

7. Argument

I. The Rejection of Claims 1-7 and 9-20 Under 35 U.S.C. § 102 (e) as Being Anticipated by the Fendick Patent Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claims 1-7 and 9-20 under 35 U.S.C. § 102 as being anticipated by the Fendick patent. (See 08/23/06 Office Action, p. 2, lines 14-15).

The Fendick patent generally describes a method and apparatus for providing provisioned and dynamic Quality of Service ("QoS") in a communications network. (See the Fendick patent, Abstract). Specifically, the Fendick patent describes an embodiment directed to provisioned QoS in a network using Next Hop Resolution Protocol ("NHRP"), as well as an embodiment directed to dynamic QoS in a network using Resource Reservation Setup Protocol ("RSVP"). (See Id., col. 4, lines 1-4). According to the Fendick patent, methods of ensuring a certain QoS are delivery guarantees such as bandwidth guarantees, delay guarantees and packet loss guarantees. (See Id., col. 1, lines 45-47). Furthermore, it is important to note that according

to the Fendick patent, a NHRP system is unable to take advantage of the QoS capabilities of Asynchronous Transfer Mode ("ATM") when transporting Internet Protocol ("IP") information. (See Id., col. 2, lines 30-32). The ATM is a "connection" oriented system wherein a specific path, namely a Switched Virtual Circuit ("SVC"), is established between an origin and a destination. (See Id., col. 1, lines 48-52). The disclosure of the Fendick patent goes on to state that in an NHRP system, there is no way that a sender of IP information can know the QoS preferences or limitations of a receiver using NHRP. (See Id., col. 2, lines 32-33). According to the embodiment of the Fendick patent using the NHRP system, a number of NHRP Servers ("NHS") and NHRP Clients ("NHC") can communicate over the network. Specifically, a sender NHC sends a resolution request to a receiver NHC; and the receiver NHC returns a resolution reply to the sender NHC, wherein the reply includes QoS information as well as an ATM address of the receiver NHC. (See Id., col. 4, lines 14-29). The QoS information is used to create an SVC having an appropriate QoS for information delivery, such as a guaranteed bandwidth. (See Id.). Thus, when the sender NHC receives the reply from the receiver NHC that includes the QoS information, the sender NHC can control the flow of information packets from the sender NHC to the receiver NHC over the SVC. In other words, the sender NHC may control the delivery of the information packets based on a requested QoS from the receiver NHC.

In contrast to the NHRP system, the Fendick patent also describes an RSVP system as a generic IP network reservation protocol that allows a specific QoS to be established for an IP data flow. (See Id., col. 2, lines 41-43). Under the RSVP network, the receiver hosts are responsible for requesting resource reservations, wherein each host can request a QoS tailored to its particular need by sending messages to the sender host. (See Id., col. 2, lines 55-59). A first tree is established for the delivery of information packets when a first host receives a

request having a first QoS. (See Id., col. 7, lines 46-53). If a second host sends a request having a second QoS, then a determination is made as to whether the QoS is within a specified threshold range of the first tree. (See Id.) The result of this determination will either add a branch to the first tree (if the second QoS is within the threshold); upgrade the first tree (if the second QoS is greater than the first QoS and within the threshold); or establish a second tree (if the second QoS is beyond the threshold of the first tree. (See Id., col. 7, lines 54-59). Thus, according to the Fendick patent, the delivery of information packets that flow through a RSVP system may be adjusted based on the specified threshold ranges from the QoS of the delivery trees within the system.

B. The Fendick Patent does not Disclose or Suggest "Coding the Data Stream in a Manner Which Takes Advantages of the Range of Bandwidths or Types of Data Stream That has been or is to be Selected" as Recited in Independent Claims 1, 10, 12, and 17.

The Examiner asserts that the Fendick patent discloses the step of "coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected," as recited in claim 1 of the present invention. (See 08/23/06 Office Action, p. 3, lines 10-13). However, this assertion is incorrect.

The Examiner appears to equate the performance of the recited coding of the data stream of claim 1 to the NHC 301 in the NHRP system of the Fendick patent. (See Id.). The Examiner also appears to equate the recited coding of the data stream to the establishment of a first delivery tree and a second delivery tree, each having a respective QoS, in the RSVP system of the Fendick patent. (See Id.). As described above, the Fendick patent ensures certain QoS guarantees to be established for the delivery of information in the network. However, the control

or adjustment of the delivery of information packets is not equivalent to, nor analogous to, the coding of a data stream. Contrary to the Examiner's assertion, there is no indication within the Fendick patent that either disclosed method or apparatus codes a data stream. Unlike the recitations in claim 1 of the present invention, the Fendick patent only uses an adjustable flow of information packets to vary the delivery of the packets based on the requested QoS of the recipient. The Fendick patent does not allow for multiple data streams representing the same content to be coded with different packets, such as, for example, packets having varying Base Layers and/or varying Enhancement Layers. While the flow of the information packets of the Fendick patent may be modified for varying quality, each of the recipients according to the Fendick patent receives the same information packets.

Regardless of the system (NHRP or RSVP) utilized by the Fendick patent, the systems described simply adjust the flow of information packets based on QoS requests and do not code the information packets within the flow according to "the range of bandwidth or type of data stream," as recited in claim 1. Within the NHRP system as described by the Fendick patent, a SVC is created between the sender NHC 301 and the receiver NHC 302 based on requested QoS information. However, as described above, the SVC only identifies a specific path between the origin and the destination. The sender NHC 301, referenced by the Examiner, controls the flow of information over the SVC. However, controlling the flow, or altering the QoS of the flow, does not change the information packets of the flow. Changing the QoS of the flow of information packets only affects the delivery of the packets and has no bearing on the packets contained within the flow or how the packets are coded. Thus, neither the SVC nor the sender NHC 301 performs a function analogous to coding a data stream since neither the SVC nor the sender NHC 301 modifies the information packets within that flow. With regard to the RSVP

system, as described above, there are first and second requests having different QoS, wherein separate trees, or routing paths, may be established to accommodate different flows of information packets. However, neither the establishment of a second tree nor the upgrade of an existing tree is analogous to coding a data stream. The modifications to the routing paths simply adjust the flow of the information packets within the RSVP system based on threshold ranges received from the requesting receivers. The process described for the RSVP system, as referenced by the Examiner, does not include coding the flow of the information packet that travels along these routing paths. The use of various routing paths does not change the information packets within the flow or how the packets are coded.

In view of the above arguments, it is respectfully submitted that the Fendick patent fails to disclose or suggest, "coding the data stream in a manner which takes advantage of the range of the bandwidths or types of data stream that has been or is to be selected," as recited in claim 1. Thus, it is respectfully requested that, for at least the reasons stated above, claim 1 of the present application is not anticipated by the Fendick patent, and request that the rejection of this claim be reversed. As claims 2-7, 9 and 20, depend from, and therefore include all the limitations of claim 1, it is respectfully requested that the rejections of these claims are also reversed.

Claim 10 stands rejected by the Examiner under the same rationale applied against claim 1. (See Id., p. 5, lines 3-5). Claim 10 recites, *inter alia*, "...means for coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected..." Therefore, for the reasons discussed above with respect to claim 1, it is respectfully requested that the rejection of claim 10 is also reversed. As claim 11

depends from, and therefore includes all the limitations of claim 10, it is respectfully requested that the rejection of claim 11 is also reversed.

Claim 12 stands rejected by the Examiner under the same rationale applied against claim 1. (See Id., p. 5, lines 7-9). Claim 12 recites, *inter alia*, "...coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected..." Therefore, for the reasons discussed above with respect to claim 1, it is respectfully requested that the rejection of claim 12 is also reversed. As claims 13 and 14 depend from, and therefore include all the limitations of claim 1, it is respectfully submitted that the rejections of these claims are also reversed.

Claim 17 stands rejected by the Examiner under the same rationale applied against claim 1. (See Id., p. 5, lines 14-16). Claim 17 recites, *inter alia*, "...coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected..." Therefore, for the reasons discussed above with respect to claim 1, it is respectfully requested that the rejection of claim 17 is also reversed. As claims 18 and 19 depend from, and therefore include all the limitations of claim 1, it is respectfully submitted that the rejections of these claims are also reversed.

II. The Rejection of Claims 8 and 21 Under 35 U.S.C. § 103(a) as Being Unpatentable Over The Fendick Patent and Further in View of the Schuster Patent Should Be Reversed.

A. The Examiner's Rejection

In the Final Office Action, the Examiner rejected claims 8 and 21 under 35 U.S.C. § 103 (a) as being unpatentable over the Fendick patent in further view of the Schuster patent. (See Id., p. 6, lines 9-11).

B. Neither the Fendick Patent nor the Schuster Patent, Alone or in Combination Discloses or Suggest "Coding the Data Stream in a Manner Which Takes Advantage of the Range of the Bandwidths or Types of Data Stream That has been or is to be selected," as Recited in Independent Claims 1.

The Examiner correctly acknowledges that the Fendick patent fails to explicitly teach the ability to perform motion compensation. (See Id., p. 6, lines 12-14). However, the Examiner relies on the disclosure of the Schuster patent to allegedly teach this limitation. (See Id., p. 6, lines 15-18). The Schuster patent is silent on "coding the data stream in a manner which takes advantage of the range of the bandwidths or types of data stream that has been or is to be selected," as recited in claim 1. As discussed above, the Fendick patent does not teach or suggest all the limitations of independent claim 1. It is respectfully submitted that Schuster is insufficient to cure the above-stated deficiencies of the Fendick patent. Because claims 8 and 21 depend from, and, therefore include all the limitations of claim 1, it is respectfully submitted that rejections of claims 8 and 21 are reversed for the reasons stated above with reference to claim 1.

8. Conclusions

For the reasons set forth above, Appellant respectfully requests that the Board reverse the final rejections of the claims by the Examiner under 35 U.S.C. § 102(e) and § 103(a), and indicate that claims 1-21 are allowable.

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Respectfully submitted,

Dated: January 18, 2007

By: _____
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CLAIMS APPENDIX

1. (Rejected) A method for transmitting video data, comprising the steps of:

(a) assigning a recipient to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream is to be multicasted;

(b) selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient; and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient is used to process data of the selected data stream type;

(c) coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected; and

(d) multicasting the coded data stream over the link to the MG of the recipient.

2. (Rejected) The method of claim 1, wherein

step (c) precedes step (a), and

step (c) includes coding a plurality of data streams, each corresponding to a respectively different one of the plurality of predetermined ranges of bandwidths.

3. (Rejected) The method of claim 2, wherein a scalable coding technique is used, and two of the plurality of data streams have a common base layer and respectively different enhancement layers.

4. (Rejected) The method of claim 3, wherein a first one of the two data streams has an enhancement layer with frequency weighting, selective enhancement or any other quality improvement tool targeted towards a particular bit-rate range, and a second one of the two data streams has an enhancement layer without frequency weighting.

5. (Rejected) The method of claim 1, wherein

step (a) precedes step (c), and

steps (a), (b) and (c) are performed in real time or near real time in response to a request for the video segment.

6. (Rejected) The method of claim 1, wherein:

step (a) precedes step (c),

steps (a), (b), (c) and (d) are performed in first and second iterations for the same video segment,

a respectively different average or minimum available bandwidth of the MG of the recipient or capability bandwidth of the MG of the recipient is identified in step (a) during each of the first and second iterations,

a respectively different coded data stream is provided for the same video segment in step (c) during each of the first and second iterations.

7. (Rejected) The method of claim 1, wherein step (a) includes receiving from the MG of the recipient an identification of the average or minimum available bandwidth of the link or an identification of the MG of the recipient capability when the link is established.

8. (Rejected) The method of claim 1, wherein the identified capability of the MG of the recipient is the ability to perform motion compensation.

9. (Rejected) The method of claim 1, wherein:

step (a) includes determining an average or minimum available bandwidth of a link over which one of the data streams is to be multicasted;

step (b) includes selecting the one of the plurality of ranges having a greatest data rate among all of the plurality of ranges that can be accommodated by a data rate of the link over which the video data are to be multicasted; and

step (c) includes coding a plurality of data streams using a fine granular scalability technique, each of the plurality of data streams corresponding to a respectively different range of data rates at which the data streams are to be multicasted.

10. (Rejected) A system for multicasting video data, comprising the steps of:

(a) means for assigning a recipient to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream is to be multicasted;

(b) means for selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient; and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient is used to process data of the selected data stream type;

(c) means for coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected; and

(d) means for multicasting the coded data stream over the link to the MG of the recipient.

11. (Rejected) The system of claim 10, wherein the coding means codes a plurality of data streams representing the same video segment, each data stream corresponding to a respectively different one of the plurality of predetermined ranges of bandwidths or a respectively different one of the plurality of data stream types, the system further comprising:

means for storing the plurality of data streams, so that any one of the plurality of data streams is available for multicast upon request.

12. (Rejected) A machine readable medium that contains computer program code, wherein, when the computer program code is executed by a processor, the processor performs a method for multicasting video data, comprising the steps of:

(a) assigning a recipient to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream is to be multicasted;

(b) selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or

minimum available bandwidth of the MG of the recipient; and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient is used to process data of the selected data stream type;

(c) coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected; and

(d) multicasting the coded data stream over the link to the MG of the recipient.

13. (Rejected) The machine readable medium of claim 12, wherein

step (c) precedes step (a), and

step (c) includes coding a plurality of data streams, each corresponding to a respectively different one of the plurality of predetermined ranges of bandwidths.

14. (Rejected) The machine readable medium of claim 12, wherein:

step (a) includes determining an average or minimum available bandwidth of a link over which one of the data streams is to be multicasted;

step (b) includes selecting the one of the plurality of ranges having a greatest data rate among all of the plurality of ranges that contain a data rate of the link over which the video data are to be multicasted; and

step (c) includes coding a plurality of data streams using a fine granular scalability technique, each of the plurality of data streams corresponding to a respectively different range of data rates at which the data streams are to be multicasted.

15. (Rejected) The machine readable medium of claim 12, wherein

step (a) precedes step (c), and

steps (a), (b) and (c) are performed in real time or near real time in response to a request for the video segment.

16. (Rejected) The machine readable medium of claim 12, wherein:

step (a) precedes step (c),

steps (a), (b), (c) and (d) are performed in first and second iterations for the same video segment,

a respectively different average or minimum available bandwidth of the MG of the recipient or capability bandwidth of the MG of the recipient is identified in step (a) during each of the first and second iterations

a respectively different coded data stream is provided for the same video segment in step (c) during each of the first and second iterations.

17. (Rejected) A signal encoded with data representing computer program code, wherein, when the computer program code is executed by a processor, the processor performs a method for transmitting video data, comprising the steps of:

(a) assigning a recipient to one of a plurality of multicast groups ("MGs"), each of the MGs being based on one of the group comprising: (1) an identified average or minimum available bandwidth of a link over which a data stream of a given video segment is to be multicasted; and (2) an identified capability of the MG to which the data stream is to be multicasted;

(b) selecting a corresponding one of the group comprising: (1) one of a plurality of predetermined ranges of bandwidths, so that the selected range contains the identified average or minimum available bandwidth of the MG of the recipient; and (2) one of a plurality of different data stream types, so that the identified capability of the MG of the recipient is used to process data of the selected data stream type;

(c) coding the data stream in a manner which takes advantage of the range of bandwidths or type of data stream that has been or is to be selected; and

(d) multicasting the coded data stream over the link to the MG of the recipient.

18. (Rejected) The signal of claim 17, wherein

step (c) precedes step (a), and

step (c) includes coding a plurality of data streams, each corresponding to a respectively different one of the plurality of predetermined ranges of bandwidths.

19. (Rejected) The signal of claim 17, wherein:

step (a) includes determining an average or minimum available bandwidth of a link over which one of the data streams is to be multicasted;

step (b) includes selecting the one of the plurality of ranges having a greatest data rate among all of the plurality of ranges that contain a data rate of the link over which the video data are to be multicasted; and

step (c) includes coding a plurality of data streams using a fine granular scalability technique, each of the plurality of data streams corresponding to a respectively different range of data rates at which the data streams are to be multicasted.

20. (Rejected) The method of claim 1, wherein step (b) includes selecting which data stream to multicast based on the capabilities of the recipient.

21. (Rejected) The method of claim 1, further comprising switching between FGS and MC-FGS structures based on bandwidth.

EVIDENCE APPENDIX

No evidence has been entered or relied upon in the present appeal.

RELATED PROCEEDING APPENDIX

No decisions have been rendered regarding the present appeal or any proceedings related thereto.